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SCIENTIFIC AND TECHNICAL CONFERENCE IN LENINGRAD POLYTECHNIC INSTITUTE

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A scientific and technical conference was held in April 1950 at the Leningrad Polytechnic Institute imeni Kalinin. Over 200 specialists, including representatives of 28 enterprises and scientific research institutes, took part in the work of the conference of the electromechanical faculty.

The work of the conference was carried out by the electrotechnical section (Chairman, Prof P. L. Kalantarov, Doctor of Technical Sciences) and the electromechanical section (Chairman, Prof M. P. Kostenko, Corresponding Member of Academy of Sciences USSR).

Prof M. A. Shatelen, Corresponding Member of Academy of Sciences USSR, presented a report on "The Works of Academician B. S. Yakobi in the Field of Electrical Measurements."

Prof M. P. Kostenko, Corresponding Member of Academy of Sciences USSR. gave a report on the results of work undertaken by the collective under his direction on the physical modeling of processers related to stability in models of low-powered, small machines.

In his report on "Calculating the Dynamic Characteristics of Servo Systems," Docent T. N. Sokolov presented his own method for synthesis of servo systems, which eliminates the need for approximate integration or cumbersome calculations and makes it possible at the very beginning of planning to select the optimum relations between the parameters of complex systems.

In his paper on "New High-Frequency Organic Dielectrics and Their Dielectric Losses," Prof M. M. Mikhaylov clarified the present status of the theory and production of high-frequency dielectrics such as polydichlorostyrene, polyethylene, polytetrafluoroethylene, "eskapou" and so on.

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The report of Prof V. C. Arutyunov and Assistant N. B. Kovalev on "The Power Engineering Index of Quality in Electrical Measuring Devices," was devoted to a survey of existing criteria of quality and to examining a new criterion proposed by the authors.

M. L. Levinshteyn, Candidate of Technical Sciences, read a paper on "Static Stability of Block Transmission and Modern Methods of Increasing It." Conditions for static stability obtained by the authors showed that employment of special measures (without longitudinal compensation) make it possible to increase the carrying capacity of an electrical transmission line 1,000 km long to its natural power, while application of longitudinal compensation increases the capacity to 1.5 times the natural power.

Prof M. D. Kamenskiy gave a report on "A New Practical Method for Determining Power Losses in Lines Under Several Loads."

In his paper on "Engineering Economia Indexes of DC Transmission Lines Used for Intersystem Linking," Docent V. S. Ravdonik discussed the special features of flexible connections in dc electric power systems.

W. I. Bachurin, Engineer, and V. V. Kaplan, Candidate of Technical Sciences, gave a report on the "Design and Results of Investigation of MG-35 Circuit Breakers Using Little Oil." These switches (35 kv, 600 amperez, and 400 MVA) are equipped with an arc-quenching device designed on the principle of a multiple automatic longitudinal blast. This plan was worked out in close cooperation with designers in the "Electroapparot" Plant and the Leningrad Polytechnic Institute (High Voltage Laboratory).

In his report on "Increasing Generator Voltages," A. R. Gershteyn discussed the work of the Leningrad Department of the All-Union Planning Trust for Steam-Electric Power Stations. He pointed out the advisability of including in a GCST an additional 1,575 kv voltage level for generators, transformers, equipment, and cables.

Docent V. A. Belyakov's paper on "Methods of Removing Potential From the Body of Autobusses" gave the results of work undertaken in close cooperation with the Streetcar and Trolley Bus Administration of Leningrad. After examination of many different plans, a general method suitable for use in Leningrad, Moscow, and other cities was proposed.

A. I. Vol'dek, Candidate of Technical Sciences, presented a report on "Differential Leakage Induction Machines."

In his paper on "Some Problems in Automatic Control of Rheostatic Braking," Docent V. Ye. Skobelev discussed problems relating to the automatization of braking processes in heavy machines.

Docent A. V. Donskoy read a paper on "Characteristics of Devices for the Induction Heating of Metals."

In his report on "The Operation of Ionic Converters With Resonance Filters in the Rectified and Inverted Current Circuits," S. B. Vasyutinskiy examined existing methods of smoothing rectified currents and the influence of resonance filters on the operation of converters.

S. R. Glinternik, Engineer, discussed converters for supplying electrified railroads in his paper on "Circuits of Ionic Converters With a Frequency of 50-16 2/3 Cps."

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The conference suffered from insufficient preparation. According to the initial plan, the conference was supposed to deal with the results of cooperative work done by scientific workers of the Leningrad Polytechnic Institute and workers ir industry. As a matter of fact, the conference turned into the usual scientific and technical meeting of the institute and, although representatives of enterprises were present, they took no part in the consideration of problems. The connection between the reports and the needs of industry was made clear only in the reports of Kostenko, Bachurin and Kaplan, and Belyakov. There was practically no discussion and most of those participating in the discussion were members of the institute. More attention must be paid to this problem in the future in preparing for similar conferences.

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